

PAPUA NEW GUINEA

Prepared October 2000

1. **Per USCINCPACINST 6200.2:** Commanders are responsible for an effective Force Health Protection Plan for personnel deploying to locations within the USCP AOR, ensuring implementation of the Plan, for appointing a FHP Officer and assistant who will serve as the Commander's focal point for the planning, coordination, and execution of "real world" force health protection planning for a specific deployment. This is applicable to all assigned and attached personnel, all Department of Defense personnel performing official duties within locations in the AOR, and all U.S. contractor personnel employed directly by the DOD in locations in the AOR.

2. **FHP Planning must include the following elements:**

a. **Health Threat Assessment.** This assessment must evaluate known and anticipated health threats/hazards (including endemic diseases, injuries, industrial toxins, and climatic extremes) and the appropriate countermeasures to be taken for each. The standards of medical facilities vary and may be below U.S. standards, particularly in remote areas.

Crime is a serious concern in Papua New Guinea.

The following diseases are important causes of diseases:

Insect-borne illness:

Malaria and filariasis are prevalent. Dengue fever and dengue hemorrhagic fever, Japanese encephalitis, and mite-borne typhus occur.

Food-borne and water-borne illness:

Bacterial traveler's diarrheal illnesses are common. Of additional concern are also: Typhoid fever, hepatitis A, and helminthic infections.

Biointoxication may occur from raw or cooked fish and shellfish.

Other illnesses:

Diseases such as measles and diphtheria are commonly reported. Polio is still considered a possible risk, although no cases have been reported in recent years. Influenza risk extends throughout the year.

b. **Health Record and Readiness Screening.** Performed prior to deployment. Items identified for screening include: immunizations, HIV testing, TB skin testing, DNA sample on file, current physical exam, dental class I or II, prescription medications on hand, extra pair of eye glasses, and unresolved health problems (i.e., P-4 profile,

limited duty, pregnancy, mental health, etc.) which could disqualify the Service member for deployment.

c. **Updated immunization record:** Service members should have a copy of the updated immunization record.

d. **Health Threat Briefing.** Must be performed prior to deployment. Attendance must be documented. Minimum contents of a Health Threat Briefing for Papua New Guinea include the following material:

(1) **Immunizations.**

(a) **Routine immunizations:** All routine immunizations must be up to date for personnel on deployable or mobility status (tetanus booster, Hepatitis A, Hepatitis B (if indicated), typhoid, MMR, polio, influenza, yellow fever)

(b) **Current influenza vaccine.** EVEN IF LOCAL FLU SEASON IS PAST AND NEW VACCINE IS NOT AVAILABLE YET.

(c) **Special immunizations:** Japanese encephalitis. JE is endemic throughout Papua New Guinea except in the high central areas of the central province. Therefore, the Japanese encephalitis vaccine is generally recommended. Distribution is countrywide in areas where extensive mosquito-breeding sites and pig-rearing areas co-exist. Risk is year-round, though peaks during the rainy season, November through April. Mosquito vector is the Culex spp. (nighttime feeders-dusk to dawn).

d) **Yellow Fever vaccination certificate** is required if coming from a Yellow Fever infected area.

(2) **Chemoprophylaxis.**

(a) **Malaria chemoprophylaxis:** Malaria risk exists year-round in all areas below 1800 meters, including urban areas, and peaks during the rainy season, December through April. Plasmodia falciparum predominates (~82%; P. vivax/ovale ~13%). In addition to DEET and permethrin-treated BDU/uniform, chemoprophylaxis is recommended.

(b) **Recommended regimen:**

Doxycycline 100 mg PO QD, beginning 2 days before potential exposure, until 28 days after, AND Primaquine phosphate 15 mg PO QD for 14 days beginning the day of departure from the malarious area (ensure normal G6PD level prior to initiation). Primaquine must be completed before stopping Doxycycline.

Alternative regimen is Mefloquine 250 mg PO Q week beginning 2 weeks pre-exposure through 4 weeks post-exposure, plus terminal Primaquine as above. Low susceptibility has been reported in the East Sepik Province, therefore Doxycycline is the preferred regimen.

(3) Tuberculosis: Tuberculosis is highly endemic throughout the country. All service members should have a PPD done (results must be recorded) within twelve months prior to deploying. A follow-up PPD should be done approximately 3 months after returning.

(4) Personal Protective Measures .

The most important personal protective measures against insect-borne diseases (malaria, dengue, Japanese encephalitis) are avoiding vector exposure as much as possible, and using appropriate insect repellent and properly worn permethrin-treated BDU or other treatable long-sleeve uniform.

- (a) **Avoid exposure to mosquitoes, if possible.** Anopheles (malaria) and Culex (Japanese encephalitis) species of mosquitoes are primarily rural dwelling, nighttime feeders (dusk to dawn). Aedes spp. (dengue) are primarily daytime feeders, and both urban and rural dwellers (indoors/outdoors).
- (b) **33% extended-duration DEET** (NSN 6840-01-284-3982) or an equivalent should be applied to all exposed skin surfaces 30 minutes before potential exposure and should be reapplied every four to six hours, especially if there is significant sweating. When using both DEET and sunscreen, DEET should be applied approximately 30 minutes before the sunscreen. Be aware that the effectiveness of the sunscreen will be decreased by approximately 35% due to the inactivating effects of the DEET. For that reason, sunscreen with SPF 45 is recommended. Sunscreen should not be applied first since that may decrease the effectiveness of the DEET
- (c) **Permethrin treatment of uniforms and bed nets** before departure (preferably with permethrin concentrate/compressed air sprayer technique, which lasts the life of the uniform).
- (d) **Sleep under a permethrin-treated bed net** with the edges tucked in under the bedding all around if not staying in US-sponsored air-conditioned quarters.

(5) Safe Food and Water .

- (a) Wash hands before eating.
 - (b) If available consume only approved food and water.
- Otherwise:
- (c) Eat piping hot, freshly cooked food from reputable sources.

- (d) Eat no salads or fresh fruit/vegetables (except intact fruit which you wash and open yourself)
- (e) Eat no food from street vendors or stalls
- (f) Drink bottled or canned water/beverages only without ice cubes

(6) Sexually transmitted diseases. STDs are found in every area in the world and can be serious or FATAL (e.g., HIV, gonorrhea, hepatitis B).

(a) Abstinence is the only perfectly safe practice and is recommended.

(b) Barrier protection with latex condoms is the only other acceptable option (but can be just as dangerous in case of breakage).

(7) Motor Vehicle and General Safety.

(a) **Motor vehicle accidents** pose a great health risk for travelers. Seat belts and extreme caution in and around vehicles must be practiced.

(b) **General safety.** Exercise caution in ALL activities to avoid injury of any type. If you are seriously injured, there may be no option other than medical care in a facility where sterility of equipment and safety of blood products are far below those in the U.S.

(8) Environmental Factors.

(a) **Heat injury.** Climate is very hot and humid, making injuries such as heat exhaustion and heat stroke more likely. Factors that increase heat injury risk include: alcohol consumption, skin trauma, diarrhea, certain medications, and poor physical conditioning. Necessary precautions include drinking water and other fluids frequently, on a schedule, to avoid dehydration; adhering to safe work-rest cycles during extreme conditions; and careful observation of teammates to detect warning signs of heat injury such as mental status changes and cessation of sweating.

b) **Sun injury.** Sun exposure can be intense. Sun glasses, wide-brimmed hats, long sleeves and trousers, and liberal use of sunscreen (SPF 30 or greater) and lip balm are recommended precautions. Sunscreen should be applied to all sun-exposed skin (especially if taking Doxycycline) approximately 30 minutes after applying DEET.

(c) **Environmental and industrial pollution.** This can be significant, especially in the larger cities. Personnel

with underlying respiratory conditions, such as asthma, may experience difficulty.

(9) Hazardous Plants and Animals.

(a) Animal bites: The islands are rabies free.

However, animal bites of any type should be thoroughly cleansed with soap and water and evaluated by a competent healthcare provider.

(b) (b) Snakes. There are numerous poisonous snakes in Papua New Guinea; some are aggressive. It is important to avoid all interactions with snakes, as some have extremely toxic venoms and antivenin may not be readily available. First aid for snake bites:

- Have the victim lie down and rest quietly;
- Immobilize the affected part by splinting it as if it were fractured and keep it lower than the heart;
- Remove all jewelry (including from unaffected limbs);
- Arrange for urgent medevac to a medical treatment facility.
- NO ONE SHOULD ATTEMPT TO KILL OR CATCH THE SNAKE (dead snakes and severed heads have been known to bite up to several hours post-mortem)

(c) Dangerous Marine Life

(10) Personal Health and Fitness. Try as much as possible to maintain a healthful regimen of hygiene and fitness. Regular bathing and frequent changes of undergarments, including socks, are important. When exercising outdoors, be aware that shorts and tank tops will make you more susceptible to diseases carried by mosquitoes and other insects. Apply DEET repellent to exposed skin prior to exercising outdoors.

(11) Other comments. Obtain the latest State Department advisory and Consular Information Sheet prior to travel at <http://travel.state.gov>).

(12) Assistance with Health Threat Assessments, Health Threat Briefings, and countermeasures planning can be obtained from the following sources:

a. Health Promotion and Preventive Medicine Department, Tripler Army Medical Center, phone (DSN or 808)433-6693

b. Pacific Air Forces Public Health Officer, Hickam Air Force Base, phone (DSN or 808)449-2332, x269

c. Epidemiology Department, Navy Environmental and
Preventive Medicine Unit 6, phone (DSN or 808)473-0555;
email: epi@nepmu6.med.navy.mil